Geometry (prentice hall)

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| Unit  | Time | Title | Students will… | Book Chapter/sections | CCSS | EMATHSResource | PrimeResources | Moodle |
| 1 | ~6 weeks | Foundations of Geometry | Be introduced to and expand on fundamental skills and apply them throughout the course. | Chapter 1 and 3 | G.CO.1G.CO.9G.CO.12G.CO.13G.GPE.5G.GPE.6 | -Bearings |  | -History of Geometry-Video point, line, plane-Video Segment and rays-measuring with protractor-Video Measuring Angles-Unit pre and post test |
| 2 | ~3 weeks | Reasoning | Be able to understand the basics of critical thinking and the role of logic, and write several forms of proofs.  | Chapter 2 | G.CO.1G.CO.7G.CO.9G.GPE.5 | -A deductive system-if and only if-reasoning-Rube Goldberg |  | - Brain Teasers- Rube Goldberg WS and Video-Video: conditional Statements and writing conditional statements, Contrapositive, Video: Laws of Detachment and SyllogismVideo: Proofs (all)-Unit Pre and Post Tests |
| 3 | ~6 weeks | Triangles | Be able to identify types of triangles, find area and perimeter, triangle congruence and coordinate proofs. | Chapter 4 and 510-1 | G.CO.10G.SRT.4G.SRT.5G.PE.7G.MG.1 | -Altitudes of Equilateral triangles-Aircraft Carrier |  | -Video classifying Triangles-Video Exterior Angle Theorem- Video Triangle inequality theorem-Vocabulary Quiz-Interactive: Area and Perimeter of a Triangle -Video: Using the Pythagorean Theorem -Video: application problem of Pythagorean Theorem-Video: Pythagorean Theorem and Distance Formula-Video: Corresponding Angles and Sides-Video: SAS, ASA, HL, CPCTC-Video Midpoint formula-Construction Animations. -Unit pre and post test |
| 4 | ~3 weeks | Quadrilaterals | Be able to identify the types of quadrilaterals, properties of quadrilateral, postulates and theorems, and coordinate proofs.  | Chapter 610-1 | G.CO.11G.GPE.4G.GPE.5G.GPE.7G.MG.1 | -Properties of Quad.- Constructions of Quadrilaterals-Cube Project-Wonderful world of Area |  | -Wonderful World of Area-Constructions of Quads. - Video Sum of Angles-Video: Properties of Parallelograms, Rhombuses, Rectangles, Square, Trapezoids, and Kites- Unit Pre and Post Test |
| 5 | ~6 weeks | Similarity and Transformations | Be able to describe transformations in the coordinate plane, describe similarity and congruence based on transformations, and solve problems based on the transformations. | Chapter 7 and 910-4 | G.CO.2G.CO.3G.CO.4G.CO.5G.CO.6G.CO.7G.CO.8G.SRT.1G.SRT.2G.SRT.3G.SRT.5 | -Composition of dilations | -Transformation game- Similarity and sails- Fitting Triangles-Scaling away-Scaling Up-Corresponding parts of similar triangles -Similar Figures | Videos-Identifying a translation, reflection, Rotation, Dilations, Similar polygons.-Drawing a translation, reflection, RotationDilations, Similar Polygons- Architecture Application- application problems-Similarity -Reflections/ Rotation in the coordinate plane-Lines of Symmetry interactive-Center of Dilation interactive-Unit Pre and Post  |
| 6 | ~5 weeks | Trigonometry | Be able to use the Pythagorean theorem, explore the relationship between sides and angles of a right triangle, sine, cosine, tangent, and the laws associated with them. | Chapter 810-5 | G.SRT.6G.SRT.7G.SRT.8G.SRT.9G.SRT.10G.SRT.11G.GPE.7 | -Law of sin and cosine-Bicycle crash-Area using sine- Circle Folding-Unit Circle | Unit Circle | -Area Using Sine-Right Triangle Trig.- Video: 30-60-90- Video: 45-45-90- Interactive Quiz-Video: Law of sine, Law of Cosine, Area of Triangle- Unit Pre and Post Test |
| 7 | ~3 weeks | Polygons and Circle | Be able to calculate the area and perimeter of polygons using different formulas, describe the parts/pieces of a circle, and explore the relationships between them. | Chapter 123-5, 7-2, 10-3 | G.CO.1G.C.1G.C.2G.C.3G.C.5G.GPE.1G.GPE.2G.GPE.2G.GMD.1G.MG.1 | -Formula for regular polygons-Finding Circle-Investigating Circles |  | -Video: Identifying polygons- Polygon properties Table- Video: Classifying Polygons- Video: Sum of angle measure in a polygons- Video: Equation of a circle- Video: Line and Segments related to circles-Video: Tangents, Chords, Secants-Unit Pre and Post Test |
| 8 | ~3 weeks | 3-D Shapes | Be able to describe the properties of 3-D shapes, use formulas for surface area and volumes to solve application problems. | Chapter 11 | G.GMD.1G.GMD.2G.GMD.3G.GMD.4G.MG.1G.MG.2G.MG.3 | -Tumbling Cube-Cubo-Nets-Prisms-Twenty four face- Thank you boxes | -Prom center piece | -Cube Project-Video: Polyhedrons- Video: 3-D Symmetry- Cross Section interactive- Nets Interactive- Nets of 3 D Figures-Surface Area Videos: Prism, Cylinder, Pyramid, Cones, Sphere-Volume Video: Prism, Cylinder, Pyramid, Cone, Sphere-Application Videos-Similar Figures-Propane Take Problem-Unit Pre and Post Test |